X9DR3-F

Key Features

1. Dual socket R (LGA 2011) supports Intel® Xeon® processor E5-2600 and **E5-2600 v2** family†
2. Intel® C606 chipset; QPI up to 8.0GT/s
3. Up to 1TB ECC DDR3, up to 1866MHz; 16x DIMM sockets
4. Expansion slots: 3 x16 PCI-E 3.0 and 3 x8 PCI-E 3.0
5. Intel® i350 Dual port GbE LAN
6. 4x SATA2 and 2x SATA3 ports
7. 8x SAS ports from C606
8. Integrated IPMI 2.0 and KVM with Dedicated LAN
9. 11x USB 2.0 ports (4 rear, 6 via header + 1 Type A)

Links & Resources

- Tested Memory List
- Tested HDD / SSD List
- Motherboard Manual
- Update Your BIOS
- IPMI Firmware
- Download the Latest Drivers and Utilities
- Heat Sink Compatibility
- OS Compatibility

Specifications

Product SKUs	
MBD-X9DR3-F -O	X9DR3-F (Standard Retail Pack)
MBD-X9DR3-F -B	X9DR3-F (Bulk Pack)

Physical Stats	
Form Factor	E-ATX
Dimensions	12" x 13" (30.5cm x 33.2cm)

Processor/Cache	
CPU	Dual Socket R (LGA 2011) Intel® Xeon® processor E5-2600 and **E5-2600 v2** family† (up to 135W TDP **)
Note	† BIOS version 3.0 or above is required
Note	** Motherboard supports this maximum TDP. Please verify your system can thermally support.
Cache	Up to 30MB
System Bus	QPI up to 8 GT/s

System Memory	
Memory Capacity	16x 240-pin DDR3 DIMM sockets Up to 1TB DDR3 ECC LRDIMM Up to 512GB DDR3 ECC RDIMM Up to 128GB DDR3 ECC/non-ECC UDIMM
Memory Type	1866/1600/1333/1066/800MHz ECC DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs Support ECC and non-ECC UDIMMs
DIMM Sizes	32GB, 16GB, 8GB, 4GB, 2GB, 1GB, 64GB LRDIMM
Memory Voltage	1.5 V, 1.35 V
Error Detection	Corrects single-bit errors Detects double-bit errors (using ECC memory)

On-Board Devices

Chassis (Optimized for X9DR3-F)	
2U Chassis	CSE-825TQ-R740LPB
3U Chassis	CSE-835TQ-R920B
Tower / 4U Rackmount	CSE-745TQ-R920B
Important Chassis Notes	To support the new generation Intel® Xeon® processor-based motherboards, **Revision M** chassis is recommended. Please talk to your sales representative for details. Please use optional I/O shield MCP-260-00041-0N in Supermicro 1U chassis

Expansion Slots	
PCI-Express	3 (x16) PCI-E 3.0 slots 3 (x8) PCI-E 3.0 slots (Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram for details.)

System BIOS	
BIOS Type	128Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	Plug and Play (PnP) APM 1.2 PCI 2.3 ACPI 1.0 / 2.0 / 3.0 / 4.0 USB Keyboard support SMBIOS 2.7.1 UEFI 2.3.1

Management	
Software	IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support SuperDoctor® III Watch Dog NMI

Chipset	▪ Intel® C606 chipset
AHCI SATA	▪ SATA 2.0 3Gb/s with RAID 0, 1, 5, 10 SATA 3.0 6Gb/s with RAID 0, 1, 5, 10
SCU SATA (Storage Controller)	▪ SATA 2.0 3Gb/s with RAID 0, 1, 10
SAS	▪ SAS from C606 ▪ RAID 0, 1, 10 support
IPMI	▪ Support for Intelligent Platform Management Interface v.2.0 ▪ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ▪ Nuvoton WPCM450 BMC
Network Controllers	▪ Intel® i350 Dual Port Gigabit Ethernet ▪ Virtual Machine Device Queues reduce I/O overhead ▪ Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output ▪ 1x Realtek RTL8201N PHY (dedicated IPMI)
Video	▪ Matrox G200eW

Input / Output	
SATA	▪ 2 SATA 3.0 ports (6Gb/s) ▪ 4 SATA 2.0 ports (3Gb/s)
SAS	▪ 8 SAS/SATA ports
LAN	▪ 2 RJ45 Gigabit Ethernet LAN ports ▪ 1 RJ45 Dedicated IPMI LAN port
USB	▪ 11 USB 2.0 ports total (4 rear + 6 via header + 1 Type A)
Video	▪ 1 VGA port
Serial Port / Header	▪ 2 Fast UART 16550 ports: 1 rear and 1 header
DOM	▪ 1 DOM (Disk on Module) power connector
TPM	▪ 1 TPM 1.2 20-pin Header

	▪ Optional IPMI 1.5 / 2.0
Power Configurations	▪ ACPI / APM Power Management ▪ Main Switch Override Mechanism ▪ CPU Fan auto-off in sleep mode ▪ Power-on mode for AC power recovery

PC Health Monitoring	
Voltage	▪ Monitors for CPU Cores, +1.1V, +1.5V, +3.3V, +5V, +12V, +3.3V Standby, +5V Standby, VBAT, 4 Memory Voltages. ▪ 5+1 Phase-switching voltage regulator
FAN	▪ 8x 4-pin fan headers (up to 8 fans) ▪ 8x fans with tachometer monitoring ▪ Status monitor for speed control ▪ Status monitor for on/off control ▪ Low noise fan speed control ▪ Pulse Width Modulated (PWM) fan connectors
Temperature	▪ Monitoring for CPU and chassis environment ▪ CPU thermal trip support ▪ Thermal Control for 8x Fan Connectors ▪ I^2C temperature sensing logic ▪ Thermal Monitor 2 (TM2) support ▪ PECI
LED	▪ CPU / System Overheat LED
Other Features	▪ Chassis intrusion detection ▪ Chassis intrusion header ▪ SDDC Support

Operating Environment	
Operating Temperature Range	▪ 10°C - 35°C (50°F - 95°F)
Non-Operating Temperature Range	▪ -40°C - 70°C (-40°F - 158°F)
Operating Relative Humidity Range	▪ 8% - 90% (non-condensing)
Non-Operating Relative Humidity Range	▪ 5% - 95% (non-condensing)

Note: For optimized or compatible chassis, additional parts may be required, please check with Supermicro sales rep

Parts List

Parts List (retail)

	Part Number	Qty	Description
X9DR3-F	MBD-X9DR3-F	1	X9DR3-F Motherboard
I/O Cables	CBL-0044L	2	SATA CABLE 61CM FLAT S-S PBF
I/O Cables	CBL-0097L-03	2	30AWG 50CM Ipass to 4 SATA, W/50cm SB, S
I/O Shield	MCP-260-00042-0N	1	STD I/O shield for X9 socket R server MB with Gasket.

Optional Parts List

	Part Number	Qty	Description
Heat Sink (optional, not included)	-	-	CPU Heat Sink reference
TPM security module (optional, not included)	AOM-TPM-9655V or AOM-TPM-9655H	-	TPM module with Infineon 9655, RoHS/REACH,PBF; Vertical or Horizontal depends on the server

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